# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/691,419 | 10/17/2000 | Gordon MacKay | CISCP261 | 4308 |

| 22434 | 7590 | 09/01/2006 |
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| EXAMINER |
|---|
| HALIYUR, VENKATESH N |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2616 | |

DATE MAILED: 09/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 09/691,419 | MACKAY ET AL. |
| | Examiner | Art Unit | |
| | Venkatesh Haliyur | 2616 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on _26 June 2006_.

2a)☒ This action is **FINAL.**     2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) _1-21, (13 canceled)_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-12 & 14-21_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _26 June 2006_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *  c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

# DETAILED ACTION

### *Response to Amendment*

1.      The amendment filed on 06/26/2006 has been considered but is ineffective to overcome the Benedict et al. reference. In the amendment of 06/26/2006 applicant canceled the previously rejected claim 13 and combined it with claim 5.

2.      Claims 1-21 are pending in the application. Claim 13 canceled.

### *Claim Rejections - 35 USC § 102*

3.      The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.      Claims 1-12,14-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Benedict et al [US Pat: 5,321,812].

Regarding claim 1, Benedict et al. in their invention of " Loop Detection and
Dissolution in a Focal Point Network" disclosed a method for reconfiguring a
communication system **(Fig 1)** comprising a plurality of nodes **(items 10,12,14,16,18,
20,22,24,26,28,30 of Fig 1)** coupled by a plurality of communication links **(items A, B,
C, D, E, F, G of Fig 1)** comprising, determining that said communication system
includes a closed loop topology in response to receipt of a communication at least a first
of said plurality of nodes **(Fig 5, col 6, lines 7-19)**, at least temporarily preventing
effective communication across a selected one of said plurality of communication links
by deactivating **(dissolve or revoke the server/served relationship, col 2, lines 65-
68)** at least one of said communication links to change said closed loop topology to an
open topology **(Fig 6, col 6, lines 7-29) [Figs 1-6, col 2,lines 39-68,col 3,1-68,col
4,lines 1-65,abstract]**.

Regarding claims 2,3,12, Benedict et al. disclosed designating one of said plurality
of nodes as a loop-breaking master **(focal point node or server node, items 10 of Fig
1)** in response to said step of determining, wherein said step of preventing is performed
in response to a control signal or communication output **(message)** by said loop-
breaking master and said first node is said loop-breaking master **[Figs 1,5,6 col 2, lines
39-68,col 3, 1-68, col 4, lines 1-65, col 6, lines 1-29].**

Regarding claim 4, Benedict et al. disclosed a method for reestablishing effective
communication over said selected one of said plurality of communication links in
response to detection of a link loss **[col 4, lines 44-65, col 6, lines 7-41].**

Regarding claim 5, Benedict et al. disclosed a method for detecting loop topology

in a communication network **(Fig 1)** having a plurality of nodes **(items 10,12,14,16,18,**

**20,22,24,26,28,30 of Fig 1)** coupled by a plurality of links **(items A, B, C, D, E, F, G of**

**Fig 1)** wherein each of said plurality of nodes is associated with a determinable node

value **(address or ID, item 144 of Fig 7, col 6,lines 42-47, col 7,lines 4-22)**

comprising, sending at least a first communication from a first node **(item 50 of Fig 5)** to

at least a second node **(item 52 of Fig 5)**, said first communication **(message)**

including an indication of said node value of said first node, said second node receiving

said communication from said first node which includes a received node value and

comparing said received node value to a first node value which is the node value of said

second node, said second node outputting a signal indicative of a closed loop topology

when said received node value equals said first node value and the step of sending said

first communication **(message)** from said first node is performed in response to a

change in the number of nodes or links in the system **[Figs 5-8, cols 1-2, lines 1-68,col**

**3,1-68,col 4,lines 1-65,col 6, lines 7-68, col 7, lines 3-64,abstract]**.

Regarding claims 6,7, Benedict et al. disclosed that the second node **(NFP node**

**or served node, item 54 of Fig 5)** outputting a communication **(message)** which

includes said received node value **(address)** when said received node value is closer to

a predetermined node value than said first node value **(FP node or server node, item**

**50 of Fig 5) [Figs 4,5, col 4, lines 1-68, col 5,, lines 1-68, col 6, lines 1-47]**.

Regarding claims 8-10, Benedict et al. disclosed that the second node outputting a

communication **(message)** which includes said first node value when said first node

value is less than said received node value and also first node value is greater **(next node)** than said received node value and said node values are node addresses **[Figs 4,5, col 4, lines 1-68, col 5, lines 1-68, col 6, lines 1-47]**.

Regarding claim 11, Benedict et al. disclosed that said nodes include network **(Ethernet)** repeaters **(LU)** coupled to a control point **(switch)** in the network **[col 1, lines 1-68, col 2, lines 1-35, col 4, lines 1-65]**.

Regarding claims 14,15,19, Benedict et al. disclosed a method for avoiding node isolation in a network communication system having a plurality of nodes **(items 10,12,14,16,18, 20,22,24,26,28,30 of Fig 1)** coupled by a plurality of communication links **(items A, B, C, D, E, F, G of Fig 1)**, the method comprising, deactivating at least a first communication link to provide a system having an open topology with no isolated nodes, detecting effective loss of a communication link, and reactivating **(operating mode)** said first communication link and further disclosed a method the step of deactivating **(inactive)** is performed in response to detection of a closed loop topology **[Fig 1, col 3, lines 31-68,col 4, lines 65-68, col 5,lines 1-68, col 6, lines 1-41]**.

Regarding claim 16, Benedict et al. disclosed a method of reconfiguring a communication system **(Fig 1)** comprising a plurality of nodes **(items 10,12,14,16,18, 20,22,24,26,28,30 of Fig 1)** coupled by a plurality of communication links **(items A, B, C, D, E, F, G of Fig 1)** comprising, a state machine **(status/vector, SOC table)** in at least one of said plurality of nodes configured to determine that said communication system includes a closed loop topology in response to receipt of a communication **(loop detection message)** at said one of said plurality of nodes, said state machine **(status**

**maintained for each node)** also configured to provide a control signal to at least

temporarily prevent effective communication across a selected one of said plurality of

communication links by deactivating **(dissolve or revoke the server/served**

**relationship, col 2, lines 65-68)** to change said closed loop topology to an open

topology **[Figs 2-3, 6-8, col 4, lines 66-68, cols 5-6, lines 1-68, col 7, lines 1-64].**

Regarding claims 17,18, Benedict et al. disclosed that the state machine

**(status/vector, SOC table)** is further configured to designate one of said plurality of

nodes as a loop-breaking master **(focal point node or server node)** in response to

said step of determining, wherein said control signal or communication output

**(message)** by said loop-breaking master and state machine is further configured to

reestablish effective communication over said selected one of said plurality of

communication links in response to detection of a link loss **[Figs 1-3,col 4, lines 44-65,**

**col 6, lines 7-41].**

Regarding claims 20,21, Benedict et al. disclosed means for deactivating, means

for detecting and means for reactivating comprises **(CP of Fig 2 and 3)** at least a first

state machine **(status, SOC table)** coupled to at least a first of said plurality of nodes

and means for deactivating includes means for deactivating in response to detection of

a closed loop topology **[Figs 2-3, col 4, lines 25-68, col 5-7, lines 1-68].**

## *Response to Arguments*

5.      Applicant's arguments, see remarks, filed on 06/26/2006 have been fully

considered but they are not persuasive. Examiner respectfully traverses applicants to

Benedict et al. reference as follows,

        a.      With respect to applicant's arguments for claims 1,14,16, and 19 that

reference fails to teach preventing effective communication across a communication link

and deactivating at least one of said communication links, However Benedict et al.

disclosed that the loop detected message operates to *dissolve or terminate* the

server/served relationship by opening the loop formed in the communication links

between network nodes **(Fig 1, col 2, lines 65-68, col 6, lines 64-68, col 7, lines 1-3)**.

        b.      With respect to applicant's arguments for claims 5,14 & 19 that reference

fails to teach detecting effective loss of a communication link and activation,

deactivation or detect status of communication links between network nodes and the

loop detection techniques are applicable outside of the focal point or management

services context, However, Benedict et al. disclosed a **topology database and sphere**

**of control (SOC) table** for both focal and non-focal nodes to update current status of

the relationship between nodes including status of links (path) between the nodes and

further disclosed that the relationship established by two linked nodes without regard to

existing management services relationship **[Fig 2, col 4, lines 44-67, col 5 lines 1-42]**.

c.      With respect to applicant's argument for claim 5 that reference fails to

teach sending of communication upon the removal of a node or changes in number of

links in the system, However, Benedict et al. disclosed that the messages are generated

when a loop is detected and the server/served relationship between the two nodes are

terminated and the message containing the node identifier **[col 6, lines 20-67, col 7**

**lines 1-10]**.


### *Conclusion*


6.      **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action.  In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action.  In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.


7.      Any inquiry concerning this communication or earlier communications should be

directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616.
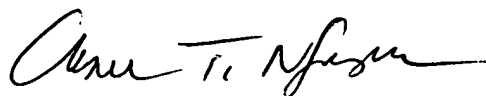
The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If

attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ricky Ngo can be reached @ (571)-272-3139. Any inquiry of a general

nature or relating to the status of this application or proceeding should be directed to the

group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.


8.      Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published

applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197(toll-free).


Venkatesh Haliyur

Patent Examiner

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